FIGURE 1

1. p7.5tk

7.5K PROMOTER   NOTI   APAI

5'- GGCCAAAAATTGAAAAACTAGATCTATTTATTGCACGCGGCCCGCCATGGGCCCGGCC -3'

2. p7.5/ATG0/tk

7.5K PROMOTER   NOTI   BAMHI SMAI   PSTI

5'-GGCCAAAAATTGAAAAACTAGATCTATTTATTGCACGCGGGCCCGGATCCCCGGGCTGCAGGAA

SALI   TRANSLATION   TRANSCRIPTION

    STOP CODONS   STOP SIGNAL

TTCGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGGGCCTAACTAATTTGTTTTTTGT

APAI

GGGCCCGGCC -3'

FIGURE 2

3. p7.5/ATG1/tk

7.5K PROMOTER   NOTI   START CODON BAMHI SMAI PSTI

5'-GGCCAAAATTGAAAAACTAGATCTATTTATTGCACGCGGCCATGGTGGATCCCCGGGCTGCAGGAA

SALI   TRANSLATION   TRANSCRIPTION
STOP CODONS   STOP SIGNAL

TTCGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGGGGGCCTAACTAATTTGTTTTTGT

APAI
GGGCCCGGCC -3'

FIGURE 2 (CONT)

4. p7.5/ATG2/tk

7.5K PROMOTER   NOTI   START
CODON BAMHI SMAI   PSTI

5'- GGCCAAAAATTGAAAAACTAGATCTATTTATTGCACGGGCCGCCATGAGTGGATCCCCGGGGCTGCAGGAA

TRANSLATION
START

SALI   STOP CODONS   TRANSCRIPTION
STOP SIGNAL

TTCGATATCAAGCTTATCGATACCGTGCGACCTCGAGGGGGGGCCCTAACTAACTAATTTGTTTTTGT

APAI
GGGCCCGGCC -3'

FIGURE 2 (CONT)

5. p7.5/ATG3/tk

7.5K PROMOTER   NOTI   START CODON   BAMHI SMAI PSTI

5'- GGCCAAAAATTGAAAAACTAGAGATCTATTATTGCACGCGGCCCGCCATGACGTGGATCCCCGGGGCTGCAGGAA

SALI   TRANSLATION STOP CODONS   TRANSCRIPTION STOP SIGNAL

TTCGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGGGCCTAACTAACTAATTTGTTTTTGT
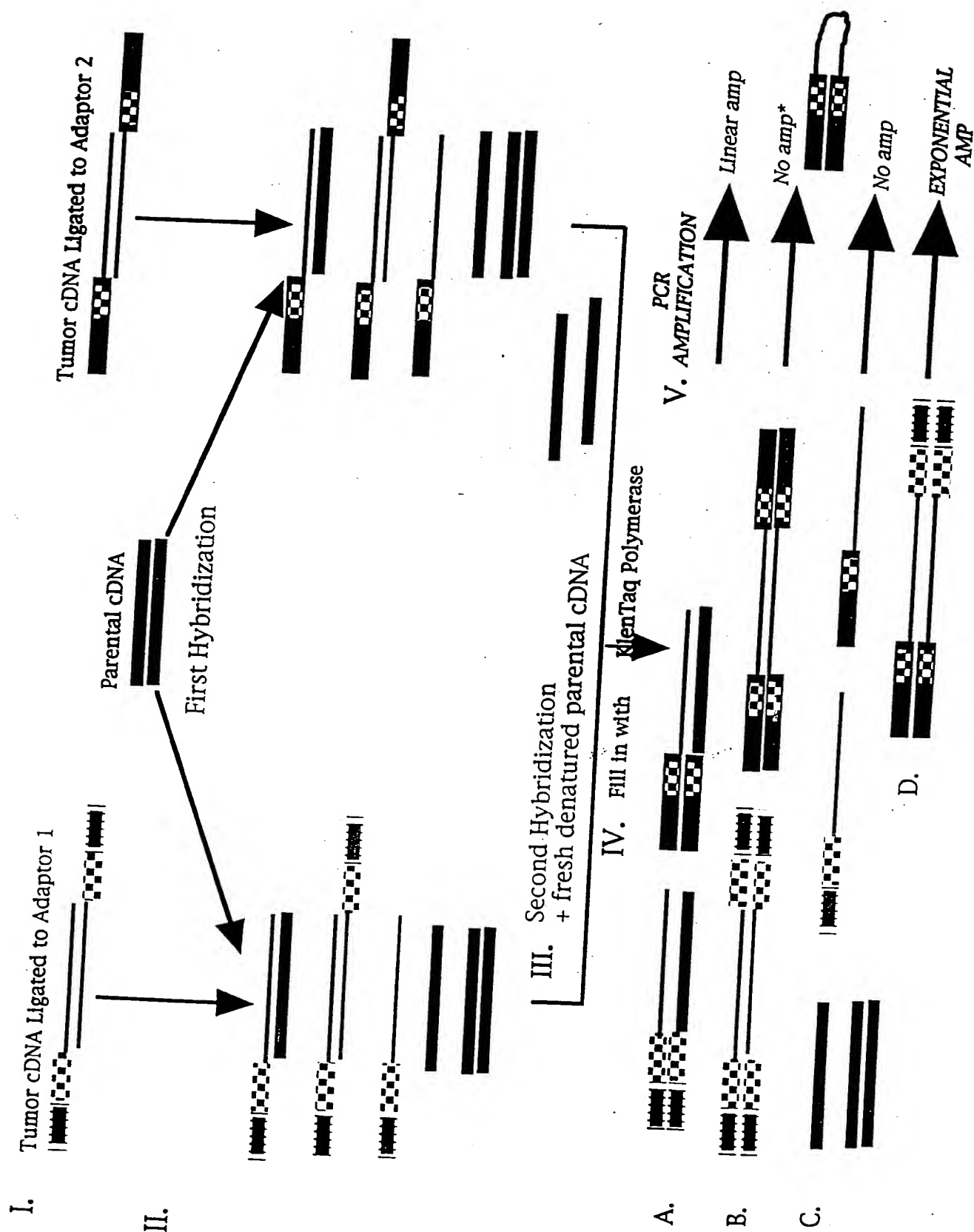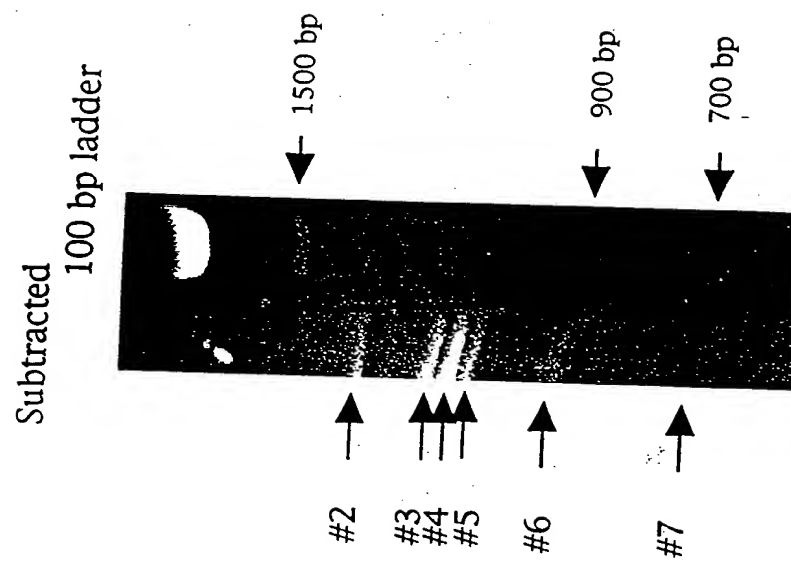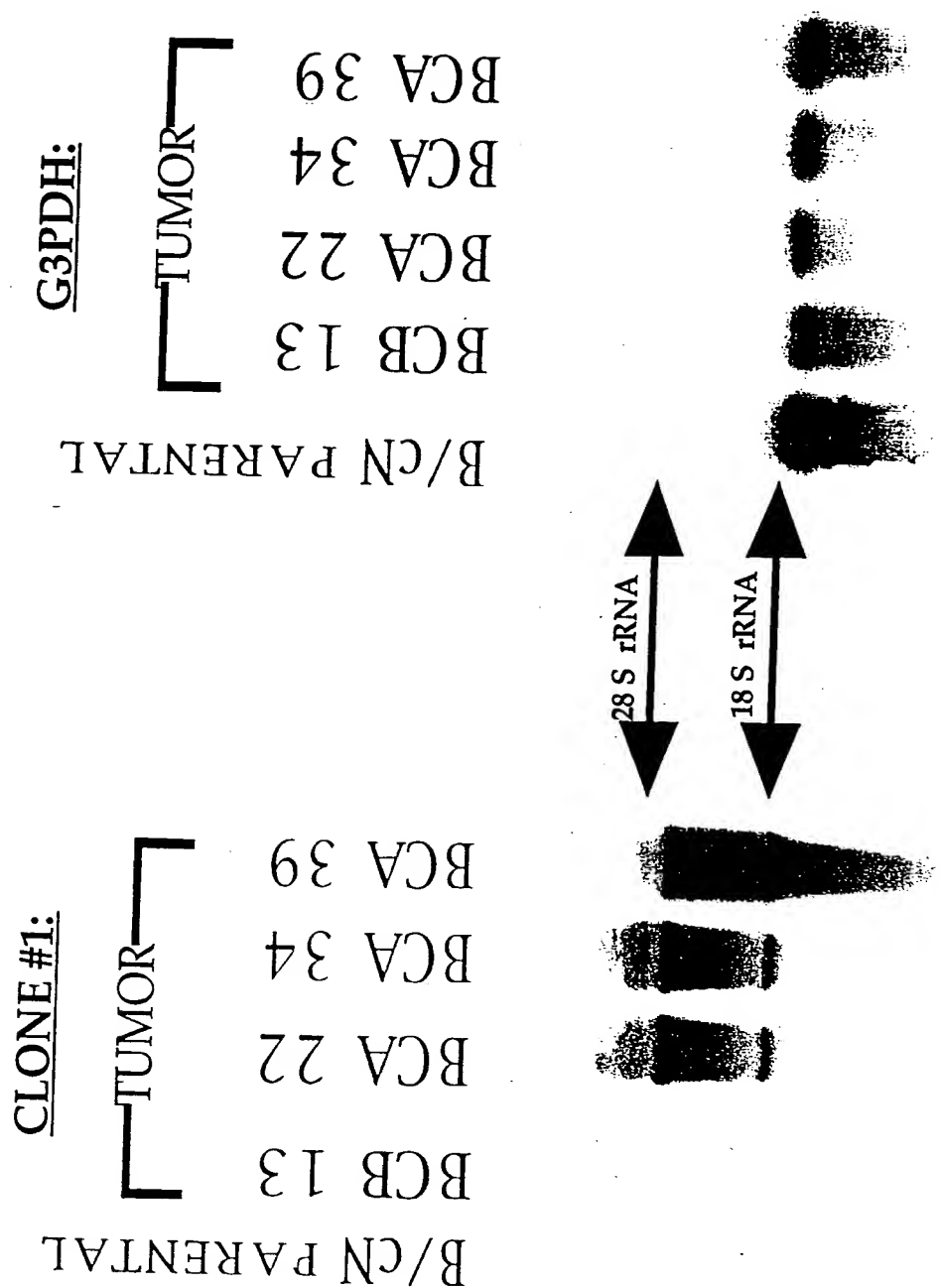
APAI

GGGCCCCGGCC -3'

FIGURE 2 (CONT)

FIGURE 3

FIGURE 4

FIGURE 5

= Region of the insert that has been sequenced

= Estimated region of IAP gene encoded by the insert, based on the molecular weight of the cloned RDA band

= Deletion in IAP sequence, i.e. distance between sequences from 5' and 3' ends of the insert is less than the distance homologous to the full length MIA14 sequence

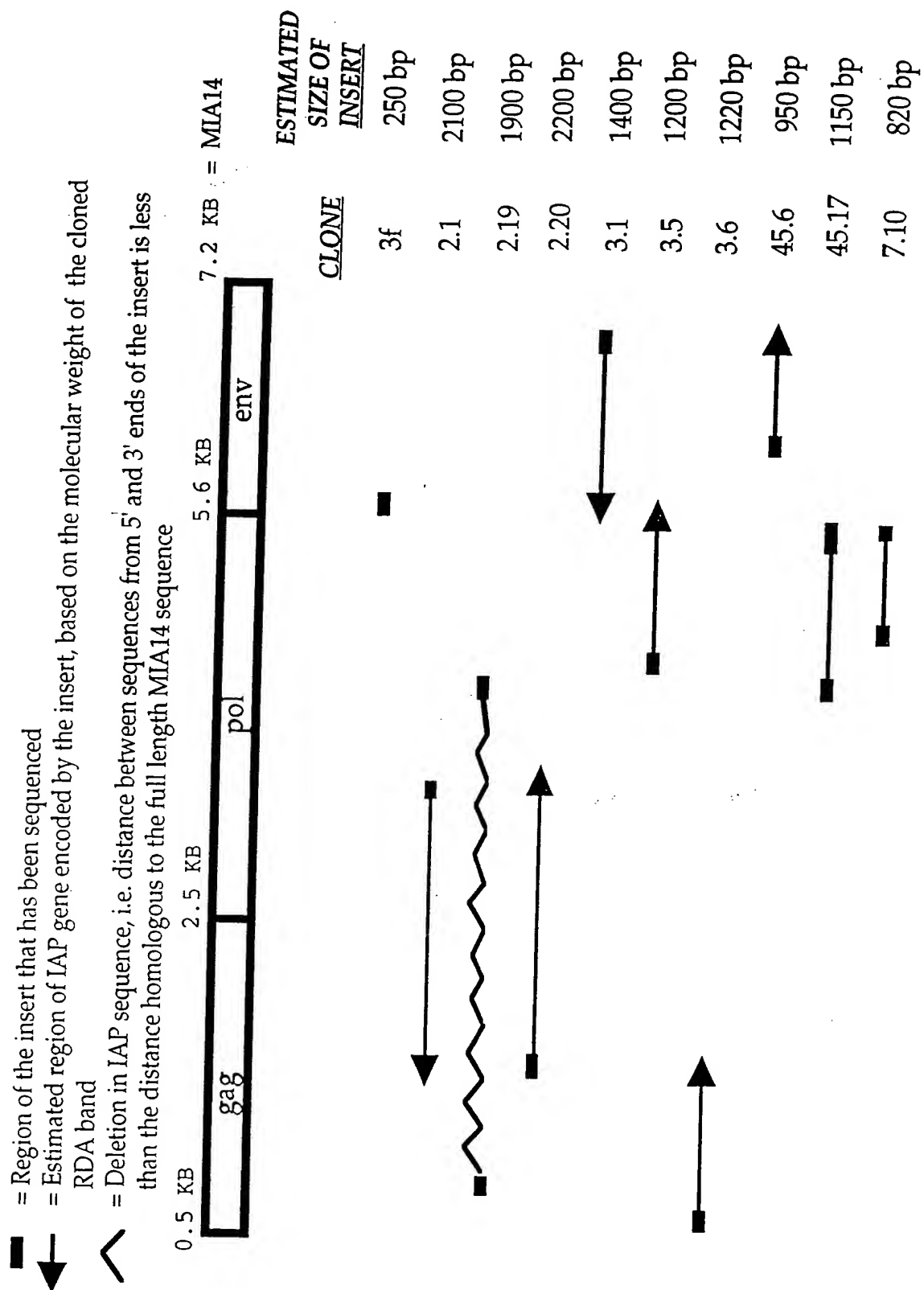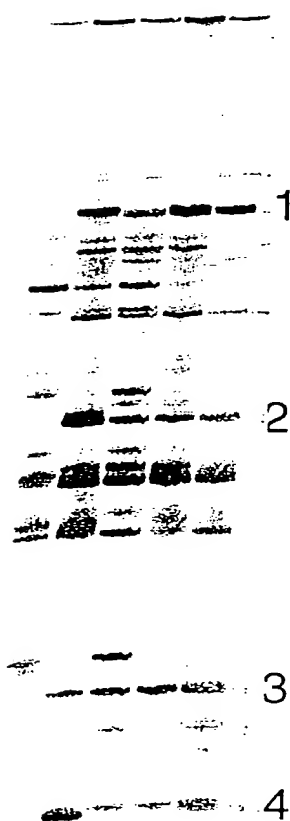| CLONE	ESTIMATED SIZE OF INSERT
3f	250 bp
2.1	2100 bp
2.19	1900 bp
2.20	2200 bp
3.1	1400 bp
3.5	1200 bp
3.6	1220 bp
45.6	950 bp
45.17	1150 bp
7.10	820 bp

7.2 KB = MIA14
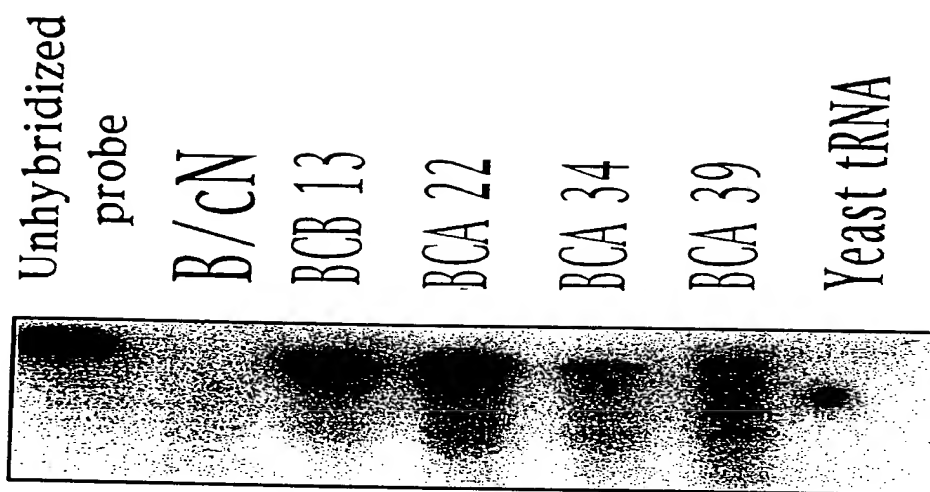
5.6 KB

2.5 KB

0.5 KB

gag   pol   env

FIGURE 6

a b c d e

a. B/c.N
b. BCB 13
c. BCA 22
d. BCA 34
e. BCA 39

PCR amplification with
primers MR_1 + MR_5.

Bands 1 to 4 are
examples of
differential display
in tumors.

FIGURE 7

A.

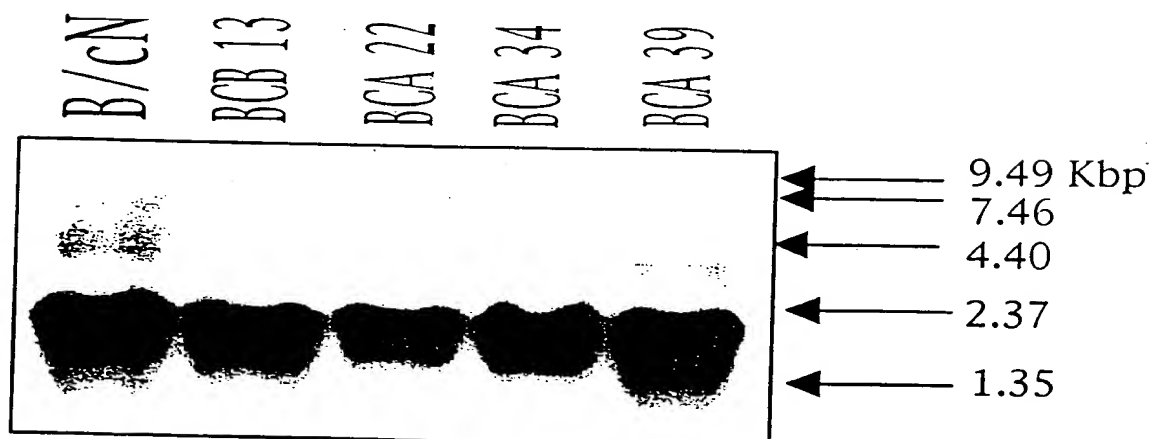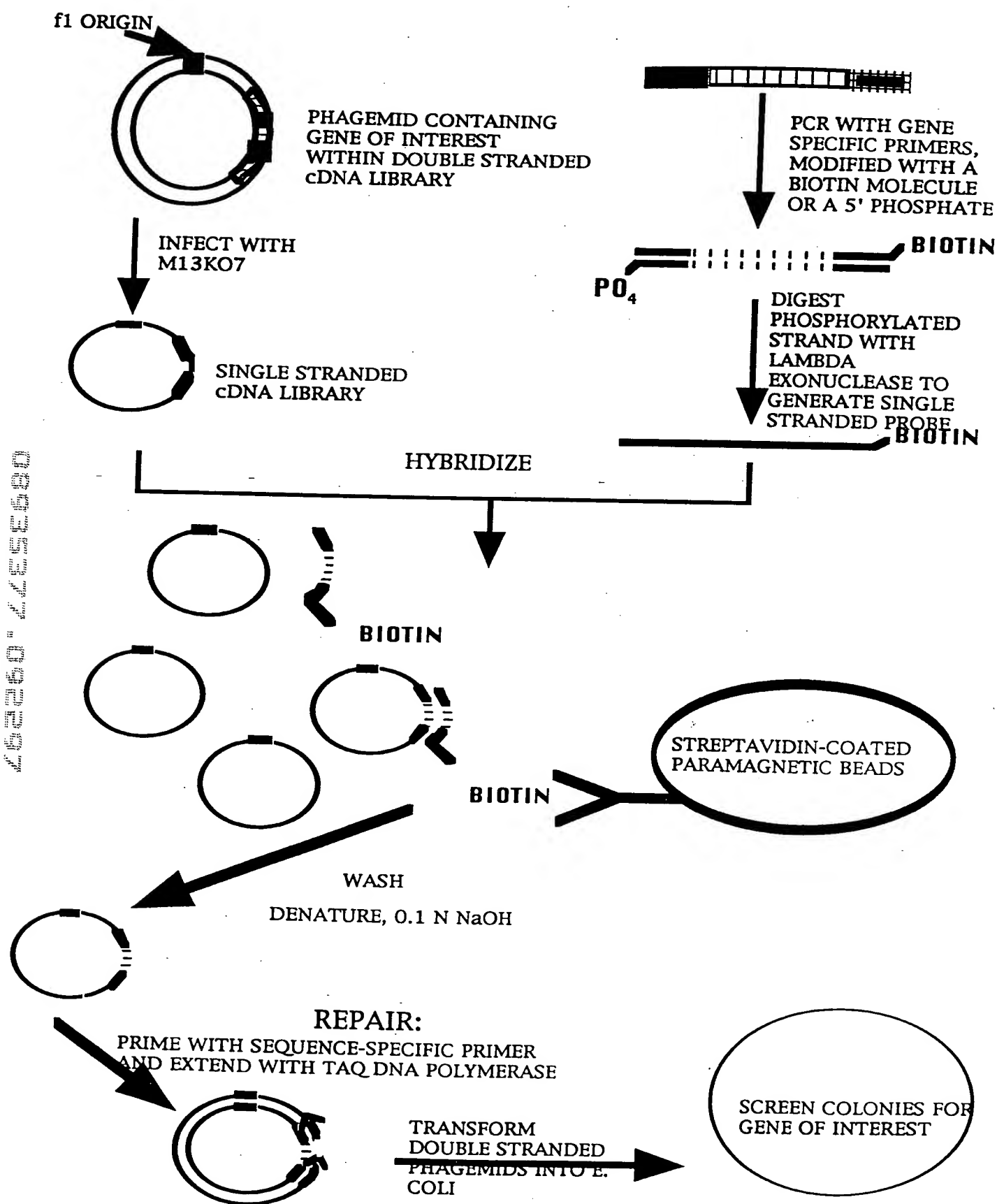
B.

FIGURE 8
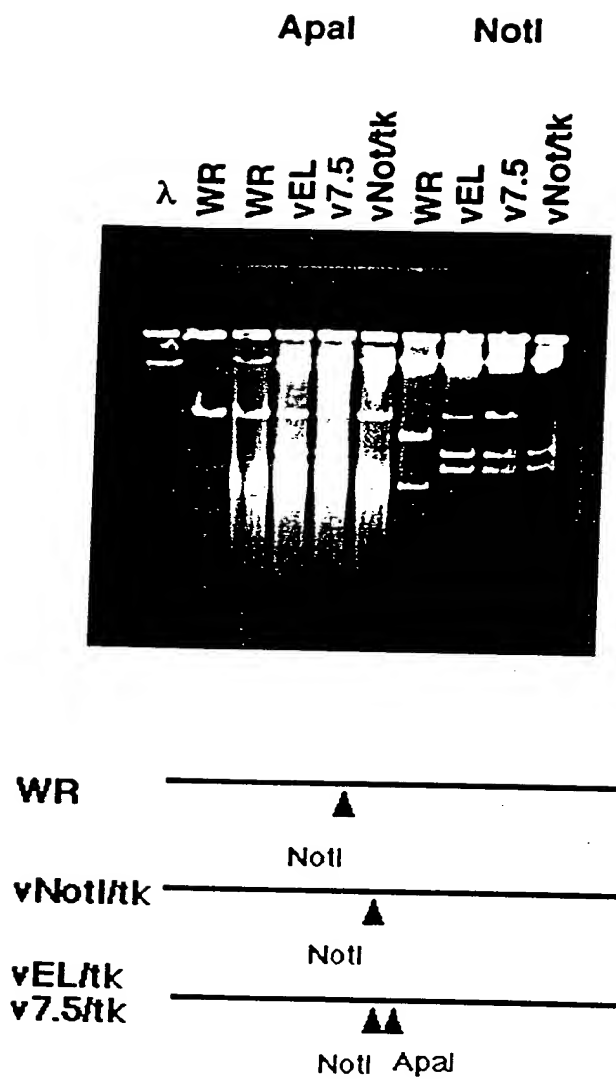
f1 ORIGIN

PHAGEMID CONTAINING
GENE OF INTEREST
WITHIN DOUBLE STRANDED
cDNA LIBRARY

PCR WITH GENE
SPECIFIC PRIMERS,
MODIFIED WITH A
BIOTIN MOLECULE
OR A 5' PHOSPHATE

INFECT WITH
M13KO7

BIOTIN

PO$_4$

DIGEST
PHOSPHORYLATED
STRAND WITH
LAMBDA
EXONUCLEASE TO
GENERATE SINGLE
STRANDED PROBE

SINGLE STRANDED
cDNA LIBRARY

BIOTIN

HYBRIDIZE

BIOTIN

STREPTAVIDIN-COATED
PARAMAGNETIC BEADS

BIOTIN

WASH

DENATURE, 0.1 N NaOH

REPAIR:
PRIME WITH SEQUENCE-SPECIFIC PRIMER
AND EXTEND WITH TAQ DNA POLYMERASE

TRANSFORM
DOUBLE STRANDED
PHAGEMIDS INTO E.
COLI

SCREEN COLONIES FOR
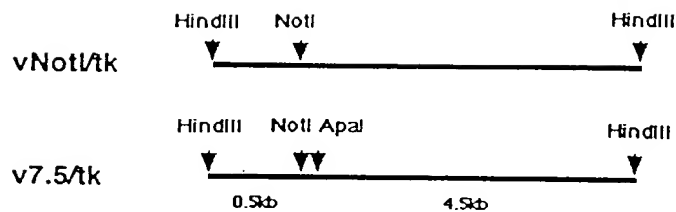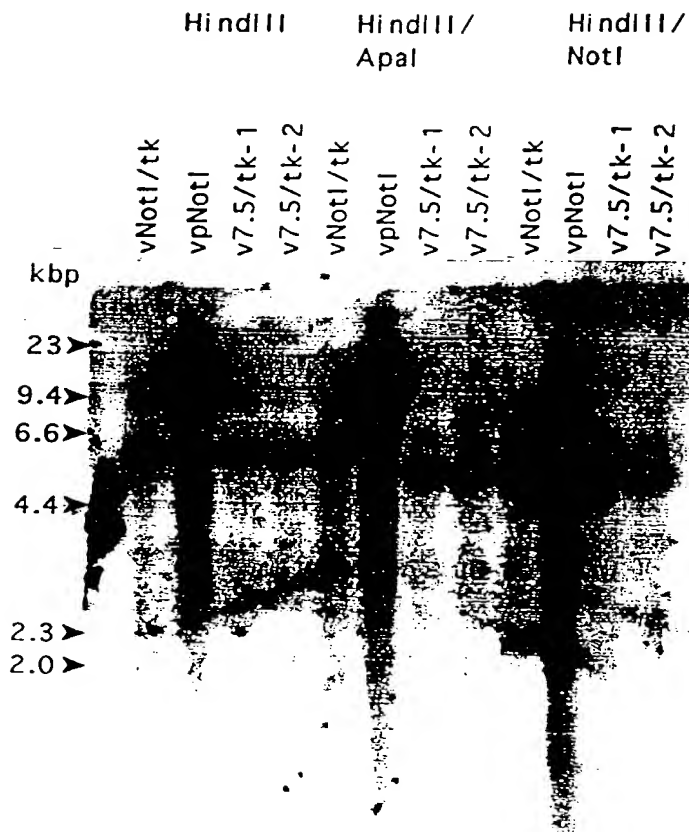GENE OF INTEREST

FIGURE 9

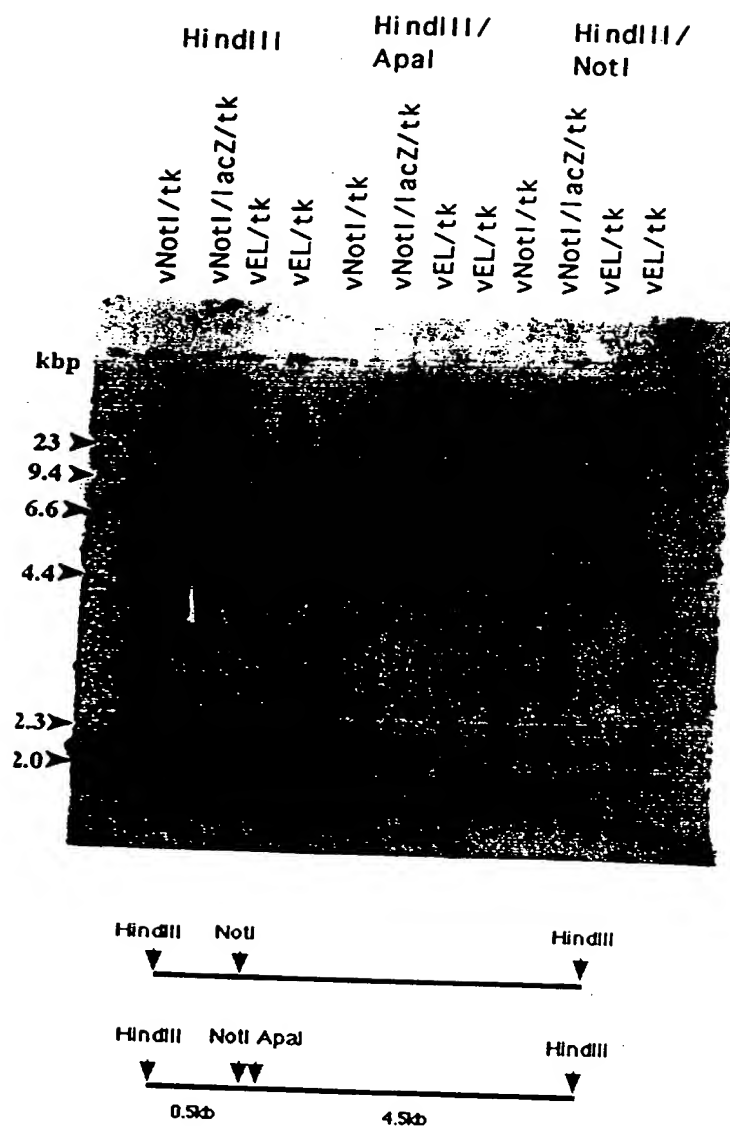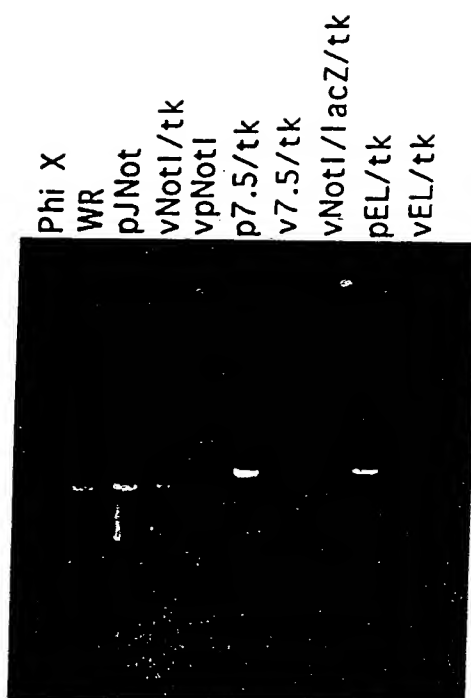FIGURE 10

A

FIGURE 11

B

FIGURE 11

FIGURE 12

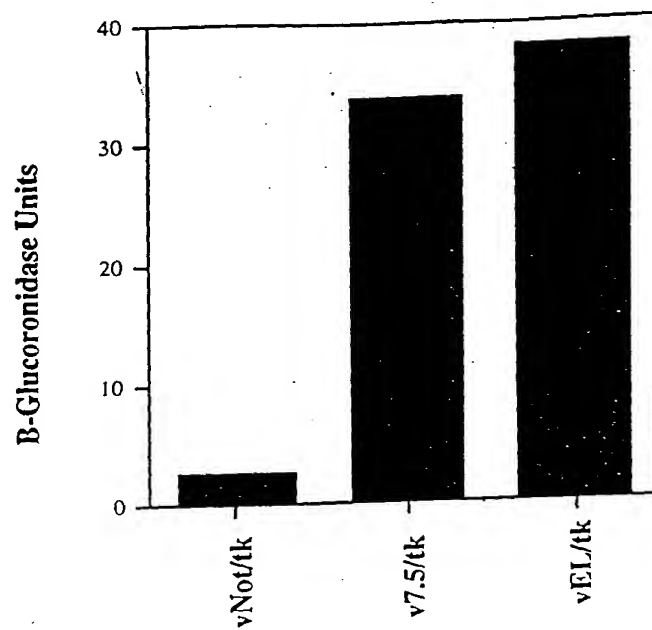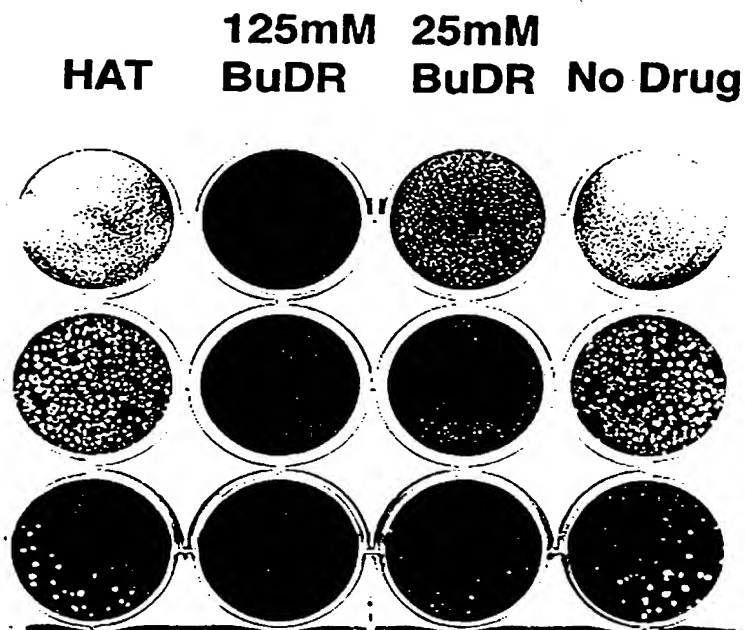## B-Glucoronidase Analysis of Recombinant Viruses

FIGURE 13

FIGURE 14